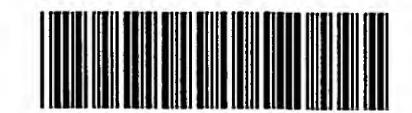
RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/559,438Source: IFWPDate Processed by STIC: 12/16/2005

ENTERED



IFWP

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/559,438

DATE: 12/16/2005

TIME: 15:35:24

Input Set : A:\ALEX-P01-107.seq.txt Output Set: N:\CRF4\12162005\J559438.raw 3 <110> APPLICANT: McWhirter, John 5 <120> TITLE OF INVENTION: CELL SURFACE PROTEIN ASSOCIATED WITH HUMAN CHRONIC LYMPHOCYTIC LEUKEMIA 8 <130> FILE REFERENCE: 107 PCT (1087-86 PCT) C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/559,438 C--> 11 <141> CURRENT FILING DATE: 2005-12-02 13 <150> PRIOR APPLICATION NUMBER: US 60/530,094 14 <151> PRIOR FILING DATE: 2003-12-15 16 <150> PRIOR APPLICATION NUMBER: US 60/475,156 17 <151> PRIOR FILING DATE: 2003-06-02 19 <160> NUMBER OF SEQ ID NOS: 86 21 <170> SOFTWARE: PatentIn version 3.2 23 <210> SEQ ID NO: 1 24 <211> LENGTH: 183 25 <212> TYPE: PRT 26 <213> ORGANISM: human 28 <400> SEQUENCE: 1 30 Met Gln Ala Pro Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu 31 1 10 34 Val Pro Val Gly Arg Gly Asn Tyr Glu Glu Leu Glu Asn Ser Gly Asp 35 25 38 Thr Thr Val Glu Ser Glu Arg Pro Asn Lys Val Thr Ile Pro Ser Thr

42 Phe Ala Ala Val Thr Ile Lys Glu Thr Leu Asn Ala Asn Ile Asn Ser 43 60 55 46 Thr Asn Phe Ala Pro Asp Glu Asn Gln Leu Glu Phe Ile Leu Met Val 47 65 70 80 50 Leu Ile Pro Leu Ile Leu Leu Val Leu Leu Leu Ser Val Val Phe 51 90 95 54 Leu Ala Thr Tyr Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser 55 100 110 58 Gln Gly Ser Gln Ser Ala Leu Gln Thr Tyr Glu Leu Gly Ser Glu Asn 59 115 120 125 62 Val Lys Val Pro Ile Phe Glu Glu Asp Thr Pro Ser Val Met Glu Ile 130 63 140 135 66 Glu Met Glu Glu Leu Asp Lys Trp Met Asn Ser Met Asn Arg Asn Ala 67 145 155 160 150 70 Asp Phe Glu Cys Leu Pro Thr Leu Lys Glu Glu Lys Glu Ser Asn His 165 71 170 175 74 Asn Pro Ser Asp Ser Glu Ser 75 180

78 <210> SEQ ID NO: 2

79 <211> LENGTH: 675

RAW SEQUENCE LISTING DATE: 12/16/2005
PATENT APPLICATION: US/10/559,438 TIME: 15:35:24

Input Set : A:\ALEX-P01-107.seq.txt
Output Set: N:\CRF4\12162005\J559438.raw

```
80 <212> TYPE: DNA
81 <213> ORGANISM: human
83 <400> SEQUENCE: 2
84 aagcttagcc cggcgcagca tcctgagcgc gcctctgccg aggcgagcgg acatgcaggc
                                                                         60
86 teccegegea gecetagtet tegecetggt gategegete gttecegteg geeggggtaa
                                                                        120
88 ttatgaggaa ttagaaaact caggagatac aactgtggaa tctgaaagac caaataaagt
                                                                        180
90 gactattcca agcacatttg ctgcagtgac catcaaagaa acattaaatg caaatataaa
                                                                        240
92 ttctaccaac tttgctccgg atgaaaatca gttagagttt atactgatgg tgttaatccc
                                                                        300
94 attgatttta ttggtcctct tacttttatc cgtggtattc cttgcaacat actataaaag
                                                                        360
                                                                        420
96 aaaaagaact aacaagaacc ttctagccaa ggatctcaga gtgctttaca gacatatgaa
98 ctgggaagtg aaaacgtgaa agtccctatt tttgaggaag atacaccctc tgttatggaa
                                                                        480
100 attgaaatgg aagagettga taaatggatg aacageatga atagaaatge egaetttgaa
                                                                         540
102 tgtttaccta ccttgaagga agagaaggaa tcaaatcaca acccaagtga cagtgaatcc
                                                                         600
104 taaacctgaa tggcgctcat gttttccaag agaagcagcc cctgagggag tctgctgagg
                                                                         660
106 ctgccaacag gatcc
                                                                         675
109 <210> SEQ ID NO: 3
110 <211> LENGTH: 181
111 <212> TYPE: PRT
112 <213> ORGANISM: murine
114 <400> SEQUENCE: 3
116 Met Thr Val Pro Cys Ala Ala Leu Val Leu Ala Leu Gly Leu Ala Phe
117 1
                                        10
120 Gly Gln Ser Ser Gln Gly Asn Asp Glu Glu Ser Glu Tyr Ser Gly Gln
                20
                                    25
                                                        30
121
124 Ser Ile Thr Glu Glu Glu Asn Ser Glu Asp Glu Thr Thr Arg Ser Ala
125
                                40
                                                    45
128 Leu Ala Thr Val Thr Thr Glu Ala Leu Ala Glu Asn Val Asn Ser Thr
      50 55 60
132 His Thr Asn Asp Thr Ser Asn Gln Val Glu Phe Ile Leu Met Val Ala
                        70
                                            75
136 Ile Pro Leu Ala Ala Leu Leu Ile Leu Leu Phe Met Val Leu Ile Ala
137
                    85
                                        90
140 Thr Tyr Phe Lys Ser Lys Arg Pro Lys Gln Glu Pro Ser Ser Gln Gly
141
                100
                                    105
                                                        110
144 Ser Gln Ser Ala Leu Gln Thr His Glu Leu Gly Gly Glu Thr Leu Lys
145
           115
                                120
                                                    125
148 Val Pro Ile Phe Glu Glu Asp Thr Pro Ser Val Met Glu Ile Glu Met
       130
149
                            135
                                                140
152 Glu Glu Leu Asp Lys Trp Met Asn Ser Met Asn Arg Asn Ala Asp Tyr
153 145
                        150
                                            155
                                                                160
156 Glu Cys Leu Pro Thr Leu Lys Glu Glu Lys Glu Pro Asn Pro Ser Pro
157
                                        170
                    165
                                                            175
160 Ser Asp Asn Glu Ser
161
                180
164 <210> SEQ ID NO: 4
165 <211> LENGTH: 367
166 <212> TYPE: PRT
167 <213> ORGANISM: rat
169 <400> SEQUENCE: 4
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/559,438

DATE: 12/16/2005

TIME: 15:35:24

Input Set : A:\ALEX-P01-107.seq.txt
Output Set: N:\CRF4\12162005\J559438.raw

171 Met Thr Arg Pro Pro Tyr Gln Glu Ala Pro Val Gly Asp Leu Gln Met 172 1 175 Gly Asp Arg Gln Glu Ser Ser Gly Asp Lys Asp Arg Asn Asp Glu Asp 179 Ser Glu Tyr Ser Gly His Ser Thr Thr Glu Glu Asp Thr Ala Glu Glu 183 Glu Thr Thr Arg Ala Leu Ala Thr Val Thr Thr Glu Ala Leu Ala Glu 187 Ser Ala Asn Ser Thr His Ile His Gly Thr Ser Asn Gln Val Glu Phe 188 65 191 Ile Leu Met Val Ala Val Pro Leu Ala Ala Leu Leu Ile Leu Leu Phe 195 Ala Ile Leu Ile Val Ile Tyr Phe Lys Ser Arg Arg Pro Lys Gln Glu 199 Pro Ser Ser Gln Gly Ser Gln Ser Ala Leu Gln Thr Leu Arg Leu Leu 203 Leu Ser Leu Glu Thr Lys Arg Pro Glu Pro Ser Val Ala Pro Ser Leu 207 Gly Pro Arg Pro Thr Ile Pro Leu Pro Thr Ala Gln Arg Gly Pro Cys 208 145 211 Gln Gln Ser Gly Cys Lys Ala Gly Thr Lys Gly Gly Arg Gln Asp Arg 215 Gly Glu Asn Glu Met Ala Gly Arg Lys Gly Thr Lys Trp Lys Pro Val 219 Gly Asn Gly Pro Gly Ala Glu Lys Met Arg Pro Gln Lys Ala Phe Cys -200223 Ser Phe Asn Ala Asp Tyr Gly Ala Ser His Ser Val His Leu Glu His 210 215 227 Phe Gly Asn Gly Phe Leu Asn Phe Ser Ile Ile Cys Met Gln Val Gly 231 Phe Cys Pro Pro Pro Ser Leu Trp Gly Ala Gln Met Arg Val Glu Ile 235 Arg Ala His Ser Gly Thr Val Glu Pro Leu Ala Val Trp Glu Ile Gly 239 Gly Glu Val Ala Lys Gln Gly Lys Gly Thr Asp Asp Leu Gly Gly Glu 243 Thr Leu Lys Val Pro Ile Phe Glu Glu Asp Thr Pro Ser Val Met Glu 247 Ile Glu Met Glu Glu Leu Asp Lys Trp Met Asn Ser Met Asn Arg Asn 248 305 251 Gly Thr Trp Lys Thr Lys Ala Phe Ala Cys Leu Cys Gly Asn Ala Gly 255 Leu Asp Gly Cys Leu Cys Phe Ile Ser Asn Ser Glu Asn Leu Lys Leu 259 Cys Phe Ile Trp His Ser Thr Cys Ala Leu Leu Lys Asp Pro Val 263 <210> SEQ ID NO: 5 264 <211> LENGTH: 703 265 <212> TYPE: DNA

RAW SEQUENCE LISTINGPATENT APPLICATION: **US/10/559,438**DATE: 12/16/2005

TIME: 15:35:24

Input Set : A:\ALEX-P01-107.seq.txt
Output Set: N:\CRF4\12162005\J559438.raw

```
266 <213> ORGANISM: artificial sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: FLJ32028 with an HA epitope tag
271 <400> SEQUENCE: 5
272 aagettagee eggegeagea teetgagege geetetgeeg aggegagegg acatgeagge
                                                                           60
274 teccegegea gecetagtet tegecetggt gategegete gttecegteg geeggggtaa
                                                                          120
276 ttatccatat gatgttccag attatgctta tgaggaatta gaaaactcag gagatacaac
                                                                          180
278 tgtggaatct gaaagaccaa ataaagtgac tattccaagc acatttgctg cagtgaccat
                                                                          240
280 caaagaaaca ttaaatgcaa atataaattc taccaacttt gctccggatg aaaatcagtt
                                                                          300
282 agagtttata ctgatggtgt taatcccatt gattttattg gtcctcttac ttttatccgt
                                                                          360
284 ggtattcctt gcaacatact ataaaagaaa aagaactaaa caagaacctt ctagccaagg
                                                                          420
286 atctcagagt gctttacaga catatgaact gggaagtgaa aacgtgaaag tccctatttt
                                                                          480
288 tgaggaagat acaccctctg ttatggaaat tgaaatggaa gagcttgata aatggatgaa
                                                                          540
290 cagcatgaat agaaatgccg actttgaatg tttacctacc ttgaaggaag agaaggaatc
                                                                          600
292 aaatcacaac ccaagtgaca gtgaatccta aacctgaatg gcgctcatgt tttccaagag
                                                                          660
294 aagcagccc tgagggagtc tgctgaggct gccaacagga tcc
                                                                          703
297 <210> SEQ ID NO: 6
298 <211> LENGTH: 192
299 <212> TYPE: PRT
300 <213> ORGANISM: artificial sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: FLJ32028 with HA epitope tag
305 <400> SEQUENCE: 6
307 Met Gln Ala Pro Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu
308 1
                                         10
311 Val Pro Val Gly Arg Gly Asn Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
312
                20
                                    25
                                                         30
315 Tyr Glu Glu Leu Glu Asn Ser Gly Asp Thr Thr Val Glu Ser Glu Arg
316
                                40
319 Pro Asn Lys Val Thr Ile Pro Ser Thr Phe Ala Ala Val Thr Ile Lys
320
        50
                            55
                                                 60
323 Glu Thr Leu Asn Ala Asn Ile Asn Ser Thr Asn Phe Ala Pro Asp Glu
324 65
                        70
                                             75
327 Asn Gln Leu Glu Phe Ile Leu Met Val Leu Ile Pro Leu Ile Leu Leu
328
                    85
                                         90
                                                             95
331 Val Leu Leu Leu Ser Val Val Phe Leu Ala Thr Tyr Tyr Lys Arg
332
                100
                                    105
                                                         110
335 Lys Arg Thr Lys Gln Glu Pro Ser Ser Gln Gly Ser Gln Ser Ala Leu
336
            115
                                120
                                                     125
339 Gln Thr Tyr Glu Leu Gly Ser Glu Asn Val Lys Val Pro Ile Phe Glu
340
        130
                            135
                                                 140
343 Glu Asp Thr Pro Ser Val Met Glu Ile Glu Met Glu Glu Leu Asp Lys
344 145
                        150
                                             155
                                                                 160
347 Trp Met Asn Ser Met Asn Arg Asn Ala Asp Phe Glu Cys Leu Pro Thr
348
                    165
                                         170
                                                             175
351 Leu Lys Glu Glu Lys Glu Ser Asn His Asn Pro Ser Asp Ser Glu Ser
352
                                    185
                180
                                                         190
355 <210> SEQ ID NO: 7
356 <211> LENGTH: 637
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/559,438

DATE: 12/16/2005

TIME: 15:35:24

Input Set : A:\ALEX-P01-107.seq.txt
Output Set: N:\CRF4\12162005\J559438.raw

```
358 <213> ORGANISM: artificial sequence
360 <220> FEATURE:
361 <223> OTHER INFORMATION: FLJ32028 with HA epitope tag
363 <400> SEQUENCE: 7
364 aagettagee eggegeagea teetgagege geetetgeeg aggegagegg acatgeagge
                                                                           60
                                                                           120
366 teccegegea gecetagtet tegecetggt gategegete gttecegteg geeggggtaa
368 ttatgaggaa ttagaaaact caggagatac aactgtggaa tctgaaagac caaataaagt
                                                                           180
370 gactattcca agcacatttg ctgcagtgac catcaaagaa acattaaatg caaatataaa
                                                                           240
                                                                           300
372 ttctaccaac tttgctccgg atgaaaatca gttagagttt atactgatgg tgttaatccc
374 attgatttta ttggtcctct tacttttatc cgtggtattc cttgcaacat actataaaag
                                                                           360
376 aaaaagaact aaacaagaac cttctagcca aggatctcag agtgctttac agacatatga
                                                                           420
378 actgggaagt gaaaacgtga aagtccctat ttttgaggaa gatacaccct ctgttatgga
                                                                           480
380 aattgaaatg gaagagettg ataaatggat gaacagcatg aatagaaatg eegaetttga
                                                                           540
382 atgtttacct accttgaagg aagagaagga atcaaatcac aacccaagtg acagtgaatc
                                                                           600
                                                                           637
384 ctatccatat gatgttccag attatgctta aggatcc
387 <210> SEQ ID NO: 8
388 <211> LENGTH: 192
389 <212> TYPE: PRT
390 <213> ORGANISM: artificial sequence
392 <220> FEATURE:
393 <223> OTHER INFORMATION: FLJ32028 with HA epitope tag
395 <400> SEQUENCE: 8
397 Met Gln Ala Pro Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu
                                         10
398 1
401 Val Pro Val Gly Arg Gly Asn Tyr Glu Glu Leu Glu Asn Ser Gly Asp
                20
                                    25
                                                         30
402
405 Thr Thr Val Glu Ser Glu Arg Pro Asn Lys Val Thr Ile Pro Ser Thr
            35
406
409 Phe Ala Ala Val Thr Ile Lys Glu Thr Leu Asn Ala Asn Ile Asn Ser
                            55
410
413 Thr Asn Phe Ala Pro Asp Glu Asn Gln Leu Glu Phe Ile Leu Met Val
                                                                  80
                        70
                                             75
417 Leu Ile Pro Leu Ile Leu Leu Val Leu Leu Leu Leu Ser Val Val Phe
418
                                                             95
                    85
                                         90
421 Leu Ala Thr Tyr Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser
422
                100
                                     105
                                                         110
425 Gln Gly Ser Gln Ser Ala Leu Gln Thr Tyr Glu Leu Gly Ser Glu Asn
                                120
426
            115
                                                     125
429 Val Lys Val Pro Ile Phe Glu Glu Asp Thr Pro Ser Val Met Glu Ile
430
                                                 140
                            135
        130
433 Glu Met Glu Glu Leu Asp Lys Trp Met Asn Ser Met Asn Arg Asn Ala
434 145
                                                                 160
                        150
                                             155
437 Asp Phe Glu Cys Leu Pro Thr Leu Lys Glu Glu Lys Glu Ser Asn His
438
                                                             175
                    165
                                         170
441 Asn Pro Ser Asp Ser Glu Ser Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
                                     185
442
                180
                                                         190
445 <210> SEQ ID NO: 9
446 <211> LENGTH: 1421
```

357 <212> TYPE: DNA

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 12/16/2005
PATENT APPLICATION: US/10/559,438 TIME: 15:35:25

Input Set : A:\ALEX-P01-107.seq.txt
Output Set: N:\CRF4\12162005\J559438.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 40

Seq#:10; Xaa Pos. 14,220

Seq#:85; Xaa Pos. 3,5,10,13,14,16,17,19,21,32,39,40,42,61,66,67,68,92,120

Seq#:85; Xaa Pos. 172,174,175

VERIFICATION SUMMARY PATENT APPLICATION: US/10/559,438 DATE: 12/16/2005 TIME: 15:35:25

Input Set : A:\ALEX-P01-107.seq.txt
Output Set: N:\CRF4\12162005\J559438.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0
L:2444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0
L:2448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:16
L:2452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:32
L:2456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:48
L:2460 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:64
L:2464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:80
L:2472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:112
L:2484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:160